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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

ON AMPUTATIONS AND THEIR TREATMENT.

BY NORMAN GAY, M. D.,
Of Columbus, Ohio.

(Read before the Ohio State Medical Society.)

During the past few years I have discarded the use of the long catling in amputation. I was never pleased with its use, or the operations when completed with it—

1. Because the flaps were apt to be a little too short, or too long, and too heavy.

2. The skin more or less jagged, the arteries split or wounded above where cut off, nerves cut too long, requiring recutting, and the muscular mass so large it is with difficulty it can be inclosed by the skin-flaps without shaving it off by a second cut.

3. In amputations of the thigh the thickest portion of the flaps come in contact with the bone at its greatest diameter, and always press more or less on its sharp edges, causing great pain and suffering during their transportation, by their tendency to drop down, the bone acting as a wedge in forcing the flaps apart, instead of giving support, as it should.

4. The amount of muscle inclosed by the skin-flaps is usually so great that the skin is quite tense at the first dressing, so that when inflammation sets in, the pressure soon cuts out your sutures, or you have to cut them at your second dressing.

The sutures, while being pressed, are a very serious source of irritation and suffering to your patient; to avoid this some surgeons have

dressed their stumps without closing by sutures, and report good results.

When the flaps were made by transfixing on the sides of the thigh, the bone had a tendency to protrude at the upper angle, for the reason given above; when cut on the anterior and posterior surface, the upper one is dragged over the sharp edge of the bone by the lower one. The motion of transportation gave great pain and suffering, which rendered the operations unsatisfactory in the army.

The circular operations, with various modifications, were adopted with better success. The objections to the circular operations are—

1. The unsightly, unworkmanlike job when finished; and

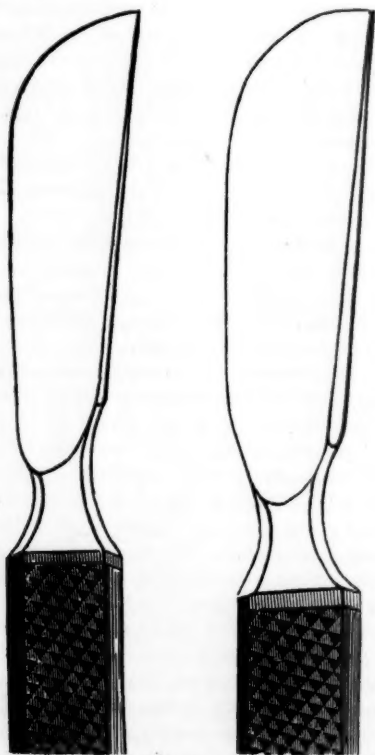
2. The length of time it takes to operate; and in many cases you have to go higher on the limb than if you use the flaps.

Of all the operations in surgery, none are so badly performed as amputations, and if it were not for the smoothing efforts of kind "Dame Nature," who absorbs a little here, and adds a little there, the stumps would be very unsightly. The fault is not so much the operation as in the manner of operating, necessitated by the instruments, namely, those long, unhandy knives, with which it is impossible to make a neat job. And why? Every one has noticed, after having transfixed and cut the flaps, that the muscles extend beyond the skin (although they have tried to cut them shorter by retracting the skin during the passage of the knife). The reason usually given is, that the skin contracts more than the muscles, when the true facts in the case are, that the muscles contract past the edge of the knife during its pas-

sage through the parts. After having trans- fixed the limb you commence to cut out; the instant the knife touches the edge of a muscle it contracts, and is cut off from one to two inches beyond the point intended, and exterior to the line on which you cut the skin. After being cut they relax, and we have the appearance stated above.

In coaptating the flaps, we have the muscles protruding beyond the skin, which requires to be returned by an assistant, or to be trimmed off. We are enabled to prevent this to some extent, by holding the muscles firmly with the hand while cutting the flaps. In large legs we can do but little with our hands.

As to the questions of circular and flap operations, the advantages and disadvantages of each have long been discussed by surgeons, and we do not propose to write of them here, but hope to offer a plan and means of operating which combine all the advantages of both, and avoid their faults.



The rough drawings I give are from knives I have found the most useful and convenient

for making all amputations of the arm or leg; the blade broad, so as to give weight; a long bevel, and very rounding near the point, that you may be able to turn it easily in cutting the skin. In all amputations two flaps are made, and they are cut from the surface to the bones.

[The cut of the largest knife is omitted. The shape of the blade is similar to the two given. These knives are manufactured by Max Woher, Cincinnati, O.]

In amputations below the knee, I select the point for cutting the bones, when the rounded portion of the knife is inserted a little posterior to the fibula; carry the section nearly straight down the leg from one and a half to three inches, depending on the size of the leg; then turn and go across the leg, to near the inner angle of the tibia; then up, on a line with the external incision, to the point opposite—cut only the skin and deep fascia—and then at right angle to the leg. The posterior skin-flap is then cut the same as the anterior; retract the skin as far as necessary, which is usually done without dissecting; then hold the knife on an angle with the flaps, and divide the muscles at the retractive edge of the skin, obliquely, on the same plane. In the posterior flap the outer layer of muscles should be divided in the same manner, when the flap is thrown back, and the deep layer of muscles divided at right angle to the bones.

In this operation you have broad flaps, the posterior being thin and light compared to those made by transfixing. There is no necessity of cutting off the spine of the tibia, nor does the posterior flap, by its weight, drag down and cause ulceration of the anterior. The arteries are found in the muscles divided at right angles to the bones, are more easily secured, and the nerves are never too long, requiring resection.

In dressing, the silver suture is evidently the best. Commence on the inner angle, and put in a sufficient number to hold the flaps neatly together, to near the outer angle, where it should be left open, so as to permit of a free discharge of all matter formed. The ligatures should always be brought out at the opening, as the leg is usually laid on the outer side, a little flexed, during its cure. Adhesive plasters are unnecessary, as the silver sutures will remain in and retain the flaps until the parts are well.

In amputations of the thigh, I make the outer angle of the flaps on a line drawn from the

anterior point of the great trochanter to the outer edge of the patella—the other angle of the flaps on a line opposite. The flaps are made on a half circle—the first section through the skin and fascia at right angles to the thigh, when the skin is retracted from one to two inches, depending on the size of the thigh; if large, and the operation high up, it should be retracted more than if small and near the knee. The knife is then applied to the muscles at the edge of the retracted skin, and they are divided obliquely to the bone, opposite the angle of the flaps. After sawing the bone you will have a cup-shaped stump, with the arteries and nerves cut nearly square off, and not too long. The flaps, when adjusted, will not press on the bone, but will leave between them plenty of room for swelling of the muscles without pressure of the sutures. The ligatures are brought out at the lower angle of the flaps, where they should be left open for the necessary discharge of matter.

The silver suture will remain in until the stump is healed. Adhesive plasters are seldom, if ever, necessary to support the parts, as they so nearly adjust themselves about the bone very little support is necessary. The skin coaptates its full thickness, and usually heals without supuration, the sutures remaining in without causing irritation until the stump is well. In amputations of the forearm, the flaps are made on the anterior and posterior surface; the outer angle of the flap on the middle of the radius, the inner angle on the middle of the inner side of the ulna. The knife is inserted at the outer angle, and carried down from one-half to an inch, depending on the size of the arm; then across to near the centre of the ulna; then up to the joint opposite, cutting the skin and fascia only, and at right angles to the limb. The posterior skin-flap is made in the same manner as the anterior. They are then retracted from half an inch to one and a half inches, depending on the size of the limb and the point of amputation. If large, and the amputation high up, they should be retracted further than if near the wrist.

After the flaps are retracted, the muscles are cut obliquely to the bone from the retracted edges of the skin-flaps. Silver sutures are used without adhesive plasters; the flaps are broad and neatly adjust themselves, forming a round, smooth stump.

In amputations of the arm, the same plan is

followed as on the thigh. The amputation can be made as quickly, and with far less pain to the patient, than by transfixing, and by a person not accustomed to operate, with far more certainty of making a satisfactory operation.

In amputating where the bones are shattered, the long knife frequently comes in contact with pieces of bone that break the edge, compelling you to withdraw your knife and operate from without (a large number of knives have been ruined in this way). In cutting from the surface, if the knife comes in contact with pieces of bone it usually does so on its outer or periosteal surface, and the muscles do not drag the bone across so as to break the edge by their contraction. The short scalpel is more easily kept in order, or repaired if the edge is broken, the trouble of carrying, and the expense of making, much less, as the two sizes, with those usually found in the operating case, will be sufficient for all amputations.

There is yet a very great range of opinion among surgeons as to the amount of injury a leg or thigh may receive and be saved to the patient. While some would recommend that almost all severe cases of compound fractures should be immediately amputated, others will try to save them, and there appears to be no well-defined rule by which one could be guided in his action. In deciding these cases, I believe the cause of the injury should be most carefully studied. For instance, if the compound fracture was caused by firearms at short range, either rifle or musket, round or conical missile, the bones will be much more injured than if the missile was going with less velocity; so that, for injuries of apparently the same character, one should be immediately amputated and the other saved. In the former case there would be a large amount of necrosed bone, while in the latter very little, if any. The soft parts are also very different. In the former case severe sloughing will follow, in the latter the wounds heal readily.

The same rule holds good with compound fractures from other causes. The velocity of the force or body causing the injury will be one of our best guides in deciding the case. I feel that the only safe treatment of compound fractures caused by a missile or heavy body moving with great velocity, as from firearms at short range, or railroad, is immediate amputation; while a similar injury in appearance could be cured without amputation.

After having decided to amputate, the next question is, at what point? In a case caused by a missile of great velocity and weight, you should go further up the leg or thigh than if it was caused by a less intense force, as the soft parts and bones are injured further than they would appear at first inspection.

I believe in not waiting for that full reaction which is usually recommended. I have always been guided by the effects of anæsthetics. If the pulse improves with the inhalation of the anæsthetic, you can operate with success; but if not, or the pulse becomes less firm and full, *delay*, as you would likely lose your patient. I always give whisky and some opiate before the chloroform or ether. After operating I feed well, and give plenty of ale or whisky from the first. After the battle of Corinth, Mississippi, from seven to eight barrels of Lillie's stock ale were drank, by three thousand wounded, daily, besides whisky and brandy. The men also ate more than their rations during their cure. Plenty of food, stimulus, warm weather or warm clothing, and hospitals with good ventilation, will cure wounded men.

Before closing, allow me to make a few remarks on the subject of dressing stumps and wounded limbs. It seems to be the fashion with almost all surgeons to use the roller bandage, which, if neatly applied, looks well, and makes a good dressing; but its application and removal require so much changing of the limb, that great pain is unnecessarily given your patient, besides injuring and irritating the wound. To avoid this, stumps are frequently allowed to go two or more days before the second dressing is applied, when the stump is found covered with decomposing blood and matter—certainly not the most healthy atmosphere for a recent injury. We found it the best plan to dress the wounds every day, from the first, not allowing the dressing to become dried to the parts, thereby requiring so much time to remove and wash.

It has been the custom in all hospitals for the dressers to undress and wash the limbs prior to the visit of the surgeon, which might be delayed for some time, if not for hours. During this time great changes may take place in the limb, from exposure; and, in our opinion, no surgeon can properly judge of the condition of the limb after having been thus exposed. To properly judge of the condition and treatment of the limb, he should not only see it, but

should see the discharge, its quantity and character, at every dressing.

The scultetus bandage (with scraped lint well soaked in whisky and water, to cover the wound) was prepared while the wound was being washed, spread on a piece of newspaper or any other substance sufficiently firm to carry it under the limb or stump, in the following manner:—Take an old newspaper or piece of oilcloth, place the strip of bandage which is to be the highest on the limb on the paper or cloth first, then the next, overlapping from one-half to two-thirds, and so on until a sufficient number have been placed thus to cover the limb as far as required; then strips are placed obliquely and at right angles, to cover the end of the stump; a little lint is then applied, which will come in contact with the under surface of the wound; the limb is then carefully raised, and the dressings, as prepared above, slipped under, when you can spread lint on the sides and ends of the stumps; the strips are then folded over. This plan of dressing gives a uniform support, and after a few applications any nurse can dress a limb without suffering to the patient; and if the strips should become too tight or loose, the nurse can readjust them without disturbing the part.

In redressing, the new dressings should be prepared before opening the wound, so as to avoid unnecessary delay and exposure. After the dressings are applied, I usually wet with warm whisky and water, then cover with oil silk, and in winter keep the parts warm with flannel. In hot weather, when flies are bad, a little piece of muslin moistened with oil of turpentine and spread over the limb, will frequently save a great deal of trouble.

I speak thus carefully of the above-named manner of dressing, because I have seen so much suffering from applying and removing roller bandages, and the difficulty in properly applying them, and changing if they become too tight or loose, by those not accustomed to their use. I say wet with warm whisky and water, from the fact that I have heard so many complain of the pain in their limbs after dressing, from cold, by exposure and cold dressing. The vitality in wounded limbs and stumps is very low; and as they soon become chilled through, one cannot too quickly wash and change the dressings.

The application of cold water dressings and ice water drips, so much recommended a few

years since, has been the cause of more deaths in surgery than all other causes put together. A person gets a leg crushed; you cut it off, and apply cold to keep down inflammation; the case goes on a few days, the vessels become relaxed, and having lost their vitality, you have a low grade of action, with sloughing, and perhaps hemorrhage. You cut down and tie the artery, or re-amputate; continue the same treatment, and you have mortification, when your patient dies—not from the injury, but from cold and long exposure when dressing. I have no doubt but that hospital gangrene is assisted very much in its development by this treatment.

Having had our say in reference to cold water dressings, allow us to say a few words on the subject of *cold water drinks*, or drinks in general, for wounded men. I believe it is the practice and "*preach*" of our profession to give men all the drink they crave; and all have seen or heard of the dreadful thirst of wounded men on the battle field, and would think it their first duty to allay it, guided only by the sensations of the sufferers. The cause of this terrible thirst is usually the loss of blood. Blood is again required by nature; to supply water you relieve the thirst, but so impair the blood that it cannot supply the necessary elements to repair the injury, and vastly increase the supuration of wounds. Physiology should teach us this, and experience with the wounded confirm it.

We believe it is of far more importance to control and direct the amount and kind of fluid a man is to use, than to direct any other one thing in his treatment. If the fluids are withheld for a short time, the blood vessels are supplied from the fluids in the surrounding parts by absorption, and their contraction and adaptation to their present condition, when the thirst ceases.

Again, in giving so much cold water, you waste a large amount of animal heat, so important to your exhausted patient, and not unfrequently induce vomiting, from overloading the stomach with water, which endangers and injures your patient. We would recommend, from our experience, to give fluids sparingly, not only at first after an injury, but during the cure of the wounded men, as too much fluid would impair the inability of the blood to grow healthy granulations, and greatly increase the amount of supuration.

II. On Resections.

We have seen, during the war, a large number of cases of resections in the arm and forearm, and have been pleased with their results. I have, in many cases, removed from four to six inches of the humerus, and in several cases to include the head, which have been followed by quick recovery and a very useful arm, far better than any artificial arm I have yet seen.

During the first part of the war a great many arms were lost by amputations, under the impression of surgeons that the amputation gave the patient a less severe wound than to try and resect. Thus, if a man had received other injuries besides, the arm was amputated. From the experience I have had in resections, I believe the shock to the system is nothing compared to amputations, while the wounds heal with less exhaustion to the patient.

The first operations I saw made by other surgeons, and those I made, were wrong in this: The pieces of crushed bone were removed frequently by forceps, using more or less force in pulling them out. In so doing, the muscles are more or less displaced, and their inter-muscular connections broken up, causing a greater degree of inflammatory action than is necessary.

While a patient is under the influence of chloroform, many think it is no matter how much violence is used. This is a great mistake, as inflammation will follow to an amount in proportion to the injury inflicted. The proper way to remove crushed bones is to make a free opening to them, and then carefully dissect them out with small, round-pointed knives.

As a rule, all the pieces of bone should be removed, but it is not usually necessary to dissect the ends of the shafts out, for I have frequently cut the end of the bone when not more than one-half the shaft remained, saving two or more inches of the bone for the man. When the soft parts are firmly attached to the bone, no trouble will follow from necrosis. The dressings should be light, and so applied as to permit of the free discharge of matter as soon as formed. When three or four inches of the bone is removed, I would not expect to unite the bones, yet these cases result in good, serviceable arms when supported with a proper splint. In all cases of crushed bones, when an attempt is made to save the limb, the pieces should be carefully removed before inflammation sets in. Much less inflammation will fol-

low than if these pieces were allowed to remain, as has been sometimes advised, until they become loosened by the efforts of nature.

REFLEX ACTION OF TENDONS.

BY ISAAC OTT, M.D.,
Of Easton, Pa.

In health, but especially in diseases of the spinal cord, Erb* discovered that when the leg is slightly flexed gentle tapping of the tendo-patellæ caused a strong contraction of the quadriceps extensor. This he designated "patellar tendon reflex." When the foot was flexed, thus putting the tendo-Achillis on the stretch, it also produced contraction of the muscle to which it is attached. Brown-Séquard's method of flexing the great toe did not prevent it. Subsequently, Westphal took up the subject, and called the patellar contraction "leg phenomenon," and the tendo-Achillis contraction "foot-phenomenon." This latter phenomenon took place in hemiplegia during the first week of its onset, and in paraplegia of a spinal origin, especially when connected with continuous rigidity of the muscles of the lower extremity. Both these "phenomena" are absent in cases of tabes dorsalis which are well marked, and in gray degeneration of the posterior columns, but are met with in myelitis, spinal apoplexy, tumors, and embolism. It was the opinion of Westphal that these reflex actions were due to direct excitation of the muscle by the vibration of its tendon, and that there is some relation between them and a defect in the conduction of the lateral columns of the spinal cord. On the other hand, Joffroy agrees with the discoverer, Erb, that they are reflex in origin, and that even irritation of the skin in those parts will produce them.

Schultze and Fürbinger† have conducted experiments on this subject and found these phenomena failed if the crural nerve was cut or woarari used. They do not agree with Joffroy in the statement that irritations of the skin will cause them. As the matter is in dispute, I found, on examination of a case of myelitis under my care, that on tapping with the finger the tendo-patellæ, a strong contraction of the quadriceps extensor took place. In fact, it was found an easy means of straightening out his limbs when contracted. Pinching the skin

in that vicinity did not produce it, as one would expect from the statement of Joffroy. In this case flexion of the foot produced contraction of the tendo-Achillis muscle, and plantar flexion of the great toe did not prevent it. The great objection of Westphal's is, that he knew no kind of reflex action resulting from tendons. Now Schiff* has shown that if, during chloroform anæsthesia, the tendo-Achillis is electrically irritated, there ensues dilatation of the pupil. It had been known for a long time that irritation of the skin had a similar effect. In experiments on this subject I have also seen, during the irritation of a tendon in chloroform anæsthesia, that the pupil dilated. Care was taken that the iris received the same amount of light, and that there was no spreading of the electric current.

Now, if an irritation of a tendon produces movement of the pupil, I see no reason that it could not cause the same in the quadriceps extensor. As an aid to diagnosis these "phenomena" show first, that the reflex action still persists; second, that the disease is neither tabes dorsalis nor gray degeneration of the posterior columns of the spinal cord, reaching to the lower dorsal or lumbar region; and third, that tapping the tendo-patellæ is an easy means of straightening out the extremities in myelitic paraplegia.

MONSTROSITY—POSSIBLY FROM MATERNAL IMPRESSION.

Read before the regular monthly meeting of the
West Philadelphia Medical Book Club, October
27th, 1876.

BY D.-G. HETZELL, M. D.,
Of Philadelphia.

Mrs. R., aged twenty-two years, called at my office, July 3d, 1876, to consult me in regard to her health and engage me to attend her in confinement about the last of July. She complained of feeling a dead weight in her abdomen (stomach, as she designated it); she felt sick, tired, scarcely able to drag along; headache; fever more or less. Examined her pulse; one hundred per minute. She had not felt the movements of the child for several days, and, in fact, she never felt it as she did when she carried her first (this being her second pregnancy). She was extremely nervous, her strength was failing, and she was very much reduced in flesh. I pre-

* English Journal of Physiology, April, 1876.

† Centralblatt für die Medicin. Wissenschaften, No. 54, 1876.

* La pupille considérée comme Esthésiomètre.

scribed potass. bromid. and elixir valerianate of ammonia, and did not see her again until I was sent for on the 9th of July, about eight o'clock in the evening, when I found her in severe labor.

She stated her pains first came on about four o'clock in the afternoon, whilst out carriage riding in the park in company with her husband; feeling unwell, she expressed a desire to return home. I found her complaining of severe pains in the lower part of her abdomen; she wished me to make all possible haste and relieve her. Upon making an examination, I found the membranes ruptured, and a foot presenting. She felt much anxiety respecting herself, and inquired of me several times if everything was right. I evaded her question by enjoining upon her patience and courage; her pains were very severe and close, and in a short time I noticed another foot, but no legs; the two feet appeared to me as if protruding through a ball; presently, with a severe pain, the body was born, there being no arms, a hand emerging from the shoulder at each side. At this stage she appeared very nervous and exhausted, and it was with great difficulty that I could keep her quiet until the head was born, which was fully half an hour after the body. I was on the eve of sending for my forceps, when suddenly, as it were, a severe pain came on, and with great force it was born, and I had before me a monster such as I never before witnessed. The cord was very thin, not larger than a piece of ordinary tying yarn. The placenta and membranes came away shortly after, with considerable hemorrhage.

On the following day she had very high fever, with great thirst; as the nurse said, she fairly burned. I treated her with quinine. She complained of great soreness in her back bone—os coccygis. There were no signs of any milk in her breasts, and in two weeks she was convalescent and ready to attend to her household duties. The monster was still-born; apparently dead a week or ten days; it was fully developed and weighed nine pounds; length eighteen inches; seventeen inches in circumference around the body at the navel. Its head was very large; the face was fully developed equal to a child three years old; the cheeks were very round and fat, hiding from view the nose, which was very small; chin double, folds of fat obliterating entirely its neck; the forehead was high and tapered off

to the occiput; the head measured sixteen inches in circumference at the occipito-frontal diameter; its sex was not fully determined, but was intended for a male, there being a small pedicle or penis emerging one inch below the navel; no scrotum; anus in proper position. Taken as a whole, it presented quite a peculiar appearance. I gleaned from the mother the following history: Last saw her menses November 30th, 1875, and in February, 1876, in company with her husband and friends, visited the Zoological Garden; among the numerous animals there exhibited none attracted her attention so much as the sea lions or cows. States that she was fully one hour watching them, and became so interested that she could not expel them from her thoughts; at home she spoke of them on going to bed; it was nothing but sea lions; she dreamed of sea lions; she would place her hand up to her shoulders to show how they used their hands, little thinking that she was producing a photographic likeness of those very monsters on her conception.

HOSPITAL REPORTS.

ORTHOPEDIC AND NERVOUS INFIRMARY.

CLINIC OF S. WEIR MITCHELL, M. D.

REPORTED BY C. C. VANDERBECK, M. D.

GENTLEMEN:—We have two cases of Infantile Paralysis

at the clinic this morning, I shall present both of them to you for examination and comparison.

CASE 10.—The first case is a little girl, aged nineteen months, who, up to the fifteenth month of life, was very well. One evening last July, after a mild diarrhoea, she became slightly feverish. The following morning she was found to have lost, almost completely, the use of the right lower extremity. For several days she was quite sore and sensitive to the touch when being handled. This hyperæsthesia existed more particularly in the trunk, especially over the back. This is a fleeting symptom belonging to those cases where the spinal meninges are affected, in connection with the ordinary lesion of infantile paralysis, existing in the anterior horn of gray matter of the spinal cord. In some of

these cases a stiffness coexists with the exalted sensibility, an example of which I saw in my private practice this very day. This sort of tetanic condition is also transitory. She is able to flex the toes and extend the foot, but is unable to flex the foot. The general health of this girl is excellent, which is the rule in cases of true infantile palsy. No internal treatment is required in such a case; all that is needed is an apparatus to keep the foot in position and a systematic and faithful course of frictions and electricity to the limb.

CASE 11.—The second case is that of a boy, aged ten years. This case is interesting in several particulars. In the first place we see the remote results of an attack of palsy, which happened when he was only sixteen months old. Let this impress you with the chronic course of this disease. Be guarded in giving a prognosis to the parents. Do not lead them to believe it a slight and easily managed disease. It is a question of months, years, or even a lifetime. It is only the mildest cases that are perfectly restored. If the palsy exists to any great degree some loss of power in some set of muscles, or in some individual muscle, is almost certain to remain.

The history of this case is as follows. The family are all well. He was a strong, hearty infant, and began to walk when he was fifteen months old. When about sixteen months of age, he fell down a long flight of stairs, but did not seem to injure himself. Three months after this, in August, he was suddenly paralyzed. It occurred while he was crawling toward his mother. He had just reached her and was about to climb into her lap, when his legs gave way, and it was discovered that he had lost power over the lower extremities. At the time of the attack, and, in fact, for some time previously, he had summer complaint.

Now, gentlemen, I ask your particular attention to this bowel disorder. Both of these patients were having, at the time the paralysis occurred, a diarrhoea, and we have discovered that many of these cases of infantile paralysis were suffering with an exhaustive discharge from the bowels before the seizure. Again, both of these cases happened in the summer, one in July, and the other in August. We have also ascertained that three-fourths of all the cases are stricken with the paralysis in this season. Hot weather seems to be an exciting cause. These points were arrived at by my friend, Dr. Sinckler, from a careful inspection of the reports of this institution.

This boy did not begin to use his legs until after two years, being in the cradle all this while. For some time after the attack he had no control of his bowels or bladder, rather a rare complication of infantile paralysis, though often an accompaniment of paraplegia. There is still a weakness of the bladder; you notice the legs are much wasted, or to speak more correctly, the muscles have never developed. The circulation of the extremities is languid, as shown by the great coldness. You notice that

a deformity of the feet exists, a double valgus,* one of the more rare varieties of deformity following this disease.

The general health of this boy is good. No internal treatment is required. The limbs need careful and thorough frictions, and the frequent application of the galvanic current of electricity. It will be necessary to apply an apparatus to each leg, to correct the deformity of the feet. In regard to the proper current of electricity to use, it depends upon circumstances. If the muscles will react to the faradic current, then it can be used; if the muscles do not respond to faradization, then it is waste of time to use it. The application is not to stimulate skin and vessels, but to move and exercise the muscles. As a rule, in bad cases, galvanization is required. If the muscles do respond to the induced current it argues a more favorable prognosis. If they do not react to either current, the case is a very serious one.

Cerebral Palsy.

CASE 12.—This case, gentlemen, is of interest in a diagnostic point of view, to distinguish whether the palsy here existing is of a local or a cerebral origin. This woman is forty-two years of age; washes for a livelihood. She went to bed apparently well, but awakened next morning with complete loss of power of the right arm. This occurred five weeks ago. For two weeks she could not move a finger. She says she could not feel for about the same time. Testing with the esthesiometer, you notice she has now a fair degree of sensibility. She complains of pricking feelings in her arm and hand. These sensations are subjective, and cannot be measured (Erb calls these peculiar symptoms paræsthesia, to distinguish them from anæsthesia, which is not perverted sensation, but true paralysis of sensory nerves.—C. C. V.). From the suddenness of the symptoms, coming on after a night's sleep, we might easily be led to believe this a case of local palsy from pressure, caused by lying on the arm during the night. She complained of no head symptoms before the attack.

Upon a close investigation, I am inclined to consider this a case of cerebral origin; some of the symptoms do not agree with the idea of its being a local palsy. She assures us that she has not cut her nails since the attack, yet they have not grown any. This favors the cerebral origin. The electric examination also favors this view. You notice no difference between the reaction of the two arms, and that there is no wasting of the muscular tissue.

Now, in palsy from local causes, there is generally a marked difference between the electrical reaction of the well and palsied sides, and there is also wasting. This is rather a difficult case to diagnose, but there is a strong probability that there is some central cerebral lesion. She is a drinker, and alcoholism may account for some

* The order of frequency of deformities from infant paralysis is:—1. Talipes equinus. 2. Equinus varus. 3. Equinus valgus. 4. Calcaneum variety. C. C. V.

of this trouble. Her urine must be carefully examined, as this may aid us in making a clear diagnosis. Albuminuria and contracted kidneys are, in many cases, accompaniments of slight cerebral palsies. The pathological condition of the brain in such cases is rupture of minute vessels, producing small clots. I have examined brains studded with these minute clots. Her heart is perfectly healthy. Time is an important element of treatment in this case. I also advise the administration of elixir cinchonæ, iron and strychnine; frictions, and the induced current of electricity must also be used. Dr. Gerhard will now take the patient in an adjoining room, and make an ophthalmoscopic examination of the eyes.*

Peripheral Palsy.

CASE 13.—This man gives us a history closely resembling that of the previous case. The night of the 15th of October, three weeks ago, this man went to bed at eleven o'clock, after a day's debauch. When he awakened in the morning, he found he had lost the use of the right hand. This paralysis was not complete. He also felt the hand to be numb. He had no central symptoms previously. Upon testing the electric condition of the muscles, you see they are normal. Sensibility is good. The nails have been cut. We cannot obtain from this patient a clear history as how he was lying when he awakened, whether his arm was under his head or not. Yet there is scarcely a doubt but that this is a case of peripheral palsy, due to pressure. You might question me about the electric examination. In the case just gone out, I gave you, as one means of diagnosing central from peripheral palsy, the normal reaction of muscles on both sides in the former. In this case you must closely follow the history. Remember, this occurred three weeks ago, and was only partial. By this time a great improvement has taken place, so that we would not be apt to find any aid in electricity as a means of diagnosis. The loss of power, you notice, is chiefly in the extensor muscles, which is quite often the case in peripheral palsy. The situation of the musculo-spiral nerve favors its frequent injury by pressure. But paralysis may occur from pressure on the median nerve; and a very slight but long-continued pressure is all that is necessary to affect any of these nerves. The prognosis of these cases is favorable, recovery taking place slowly but surely. In such a case as this, where the paralysis was not complete, recovery may be expected in a month or six weeks. If the loss of power is more complete, then a much longer time is necessary for complete restoration of the arm. No internal treatment is required in this case. The application of liniments, daily friction and kneading, and the use of electricity three times a week, are the proper means of cure.

* Dr. Gerhard reported that the eye-grounds were very pallid, but there existed no change in the vessels.
C. C. V.

MEDICAL SOCIETIES.

NEW YORK PATHOLOGICAL SOCIETY.

Stated meeting, October 25th, 1876. Dr. C. K. Briddon, President, in the chair.

Sarcoma and Scleroderma of the Tibia.

Dr. Joseph W. Howe presented a specimen of sarcoma of the tibia, from a patient who was affected with scleroderma. The history of the case was as follows:—

The patient, a girl, nine years of age, had been under the care of Dr. Gibney during 1874. This gentleman had kindly contributed the early history of the case. The patient had fallen from her bed during December, 1873, sustaining a contusion of the inner portion of the right leg, which had subsequently become the seat of inflammation. One week afterward she felt as though she had been bitten on her right knee. She subsequently complained of intolerable itching of the contused leg. The skin now became discolored, roughened and indurated, and this afterward extending to the groin caused enlargement of the inguinal glands. Two months later the disease had involved the inner and posterior aspect of the right leg, further extending to the right natis and lumbar region. The thigh was flexed upon the abdomen, being the result of rigidity of the flexors of the thigh and of the hamstring muscles. The diseased integument presented the appearances of cicatricial tissue; the patches were irregular in form, and were continuous. They were also visible on the scalp. The skin surrounding the patches was discolored. The patient entered St. Francis' Hospital in the spring of 1876. She was greatly emaciated. A large ulcer, with ragged edges, was found to involve the inner side of the patient's right leg, extending from the knee to the ankle. The skin contiguous to the ulcer was thickened. The child being in a weakened condition on admission, it was deemed advisable to defer the performance of an operation until such time as her health would be improved. The lower extremity of the tibia began to enlarge under the ulceration during last August. Afterward a fungous mass appeared, which secreted a fetid pus, and measured six inches in the vertical and four inches in the transverse diameter. As the disease progressed, ulcerative action set in above the fungus (near the knee), and below it, extending to the great toe. A consultation of the surgeons of the hospital was held, and amputation was decided upon, which was performed on September 29th, by Dr. Howe, at the middle third of the leg. It became necessary to make the flap on the inner side of the leg, through indurated tissue. This flap seemed to be divided into an external and an internal layer, the former presented a shining white appearance, and the latter was of a yellowish color, and softened; it measured one-quarter of an inch in thickness. The medullary canal of

the bone was found to contain a reddish substance, of a fluid consistence, instead of the marrow. Consequently another inch and a half had to be sawn off, in order to reach healthy bone. Sloughing of a portion of the flaps, which had occurred after the operation, was thought to have been the result of using Es-march's bandage. The patient did well after the operation, with the exception of a delay in the healing of the stump, caused by the presence of flabby granulations. The specimen showed that the tarsal and metatarsal bones and phalanges had been involved in the disease.

Dr. Delafield, who had made a microscopic examination, reported the presence of several varieties of cells; small and round, fusiform, and large, irregular polynucleated cells were discovered. Connective tissue was the principal element entering into the formation of the indurated skin.

Dr. Gibney said that while the patient had been under his care the urine did not contain any albumen, but he had learned that its presence had been detected on the child's admission to St. Francis' Hospital. At the same time enlargement of the liver had been found. After the operation the albumen had steadily decreased in quantity.

Penetrating Wound of Chest.

Dr. H. B. Sands presented specimens of the heart and right lung, with the following history:—

Dr. J. L. Thebaud, a well-known member of the profession and of this Society, had been the unfortunate victim of a most melancholy accident, caused by the explosion of a cartridge, which had resulted in his death. For years past the doctor had complained of dyspnoea and pain in the region of the heart. From what could be learned of the circumstances attending this painful accident, it would appear that while Dr. Thebaud was in the act of filling a cartridge through a brass tube an explosion suddenly occurred, wounding him severely in the chest. He immediately proceeded to his bedroom, up stairs, and Dr. Sands was summoned. The patient was greatly prostrated and delirious, and only slight pulsation could be detected at the wrist. Blood was running from a deep-seated wound of the chest, situated in the fourth intercostal space, and to the right of the sternum. On passing the little finger into the wound and pushing it to the extent of about an inch, it became arrested, meeting with some resistance. No foreign body could, however, be detected. Hemorrhage was also found to proceed from a lacerated wound of one of the patient's fingers. The occurrence of hæmoptysis on the day following the injury was an indication that the lung had been wounded. The patient suffered from dyspnoea, and was delirious on the fourth day after the occurrence of the injury. On the eighth day his condition grew worse, and increased in severity until the tenth day, when he died.

Death was caused by syncope. The temperature after the injury was below normal, but had gradually increased during the patient's illness, until it had reached 101° Fahr. The respiration was accelerated, and the pulse varied between 100 and 120.

Autopsy.—The post-mortem examination was made by Dr. Finnell. A penetrating wound of the thorax was found, situated to the right of the sternum and measuring one by one and a quarter inches. On further examination the presence of a foreign body was discovered. It had entered the right lung, through the fourth intercostal space, and had become lodged there, penetrating also the pericardial sac and producing a slight abrasion of the heart. The foreign body consisted of an irregularly-shaped fragment of a brass cylinder, measuring one by one and a quarter inches. There was pericarditis and an effusion of blood into the pericardium. There were pleuritic adhesions of both lungs, and signs of chronic pneumonia were visible. Localized pneumonia was seen in the vicinity of the injured lung tissue. Dr. Sands said that had the presence of the foreign body been ascertained, he thought that an operation for its removal would not have been justifiable, for the reason that it would have been necessary to excise a portion of the ribs.

Dr. Post was of the opinion that an operation would have been useless, taking into consideration the patient's prostrated condition.

Dr. James R. Wood was of the same opinion.

Morbus Coxæ—Exsection.

Dr. C. K. Briddon presented a specimen of hip joint disease, with a history as follows:—

The patient, a child two years of age, an inmate of the Presbyterian Hospital, when eight months old had sustained an injury resulting in slight lameness. Three months ago an abscess of the thigh had developed. There was flexion and abduction of the affected limb when the patient entered the hospital. On October 16th exsection was performed. The acetabulum was found to be covered with granulations at the time of the operation.

Osteo-Sarcoma of Tibia.

Dr. C. M. Allin exhibited, for a candidate, a tibia, which was the seat of an osteo-sarcoma about the size of an orange. A gentleman, aged sixty-six, had suffered from rheumatism. He had first complained of pain in his tibia, coincident with which the bone had become enlarged. A fungous mass had subsequently appeared, presenting the character of osteo-sarcoma. Amputation at the knee-joint had been performed.

Alveolar Sarcoma of Inferior Maxilla.

Dr. Heitzman said that he had made a microscopical examination of the tumor presented by Dr. Post at the last meeting of the Society, and had found it to be an alveolar sarcoma.

EDITORIAL DEPARTMENT.

PERISCOPE.

Thoracentesis Performed Seventy-four Times in a Child, for the Relief of Purulent Pleuritis, Followed by Cure.

Translated from the Italian, by John B. Roberts, M. D., of Philadelphia.

A boy, aged 11 years, of delicate constitution, was attacked in December, 1873, with persistent dry cough, loss of appetite, and malaise. In the beginning of January, 1874, a left-sided pleuro-pneumonia was developed; all doubt as to the disease possibly being tuberculous was eliminated by the frank course of the malady. After two weeks had passed the rational and physical signs of pneumonia diminished, but the fever persisted, and soon signs of large effusion into the left pleura manifested themselves. The displacement of the heart, and the great distress of the patient, persuaded the attendant to perform paracentesis, and on January 23d 1440 grammes of pus were accordingly evacuated, by means of the aspirator, giving instantaneous relief to the little patient. The following day the effusion was found to have been reproduced, so that it was necessary to have recourse to a second puncture, which gave vent to 1680 grammes of pus.

On February 3d a third tapping was necessitated, and between this day and the 14th of the same month four operations were done. As the character of the fluid remained the same, it was thought proper to employ disinfectant injections. In six days the fluid was much diminished and of good quality, so that everything pointed to a rapid recovery. Then the fever and pleurisy recurred, presenting phenomena of gangrene of the pleura. Puncture was repeated and tincture of iodine, perchloride of iron, etc., were injected into the pleural cavity. On the 13th of May thoracentesis had been performed seventy-four times, by which there had been removed nearly thirty-seven pints of pus. Attempts at the production of a fistule for drainage and injection were not very satisfactory, though they had been made several times. Encysted pleurisy behind the mammary region and below the clavicle then occurred, and threatened life from pressure upon the heart, but the false membrane fortunately ruptured spontaneously. Finally, on May 14th, a siphon drainage tube was introduced, and by the first of August the cure was almost complete, but was retarded by the formation of an abscess at the point of exit of the tube. Under a continuance of injections and internal medication cure followed about the end of October, after a long struggle of ten months.—*Gimbert, Annali Universali di Medicina. (Parte Rivista) Maggio, 1876, p. 485.*

Signs of the First Stage of Phthisis.

It is so all-important to recognize phthisis at its inception, that we quote the following summary from a lecture in the *Lancet*, by Dr. Jas. Edward Pollock:—

The first stage, which consists in a filling up of the alveoli by inflammatory or tubercular products, is recognizable by the signs which indicate altered physical conditions of a portion of the lung. In health we hear the gentle vesicular murmur caused by the entering air, followed by an equally gentle expiration-sound as the air is expelled, and the percussion-note is even on both sides. The voice scarcely resounds through the elastic air-tubes, but communicates a gentle purr or fremitus to the hand when applied to the chest-walls. But if a portion of lung be solidified surrounding a pervious air-tube, all this is altered. There is a dull note on percussion, because less air is under the finger. The entering air-sound may be feeble, harsh, or jerky and interrupted; the expiration-sound is prolonged unduly; while the voice-sounds are propagated to the ear as through a tube, and the heart's sounds are also conducted. Now these are common to the first stage of phthisis, but why? All that auscultation can tell you, is that a portion of the lung has several of its physical conditions altered, but of the nature of the product which so alters them it can tell you nothing. That knowledge can only come to you by a study of the other relations of your case. Let us try these alterations by their meaning.

Feeble respiration may be due to obstruction in one or more bronchioles, by pressure on their walls or narrowing of their calibre; by any obstacle to air entering, as a tumor or a foreign body in the bronchus; by anything which increases the distance of the lung from the ear, as effusion into the pleura or by a thickened pleura; and by emphysema which impairs the elasticity of the lung.

Harsh breath-sounds may be due to thickening of the walls of the air-cells, whereby their elasticity is impaired, by induration causing pressure on the alveoli, and by dryness of the mucous membrane of the bronchi.

Prolonged expiration depends on a difference in the density and an alteration in the elasticity of the lung, whereby a sound naturally feeble is developed and rendered more audible.

The bronchial or tubular character of the breath-sounds and voice is caused by the increased conducting power of the solidified lung, and excessive audibility of the heart-sounds means the same.

The wavy or interrupted inspiration sound is only valuable when permanent and conjoined with other sounds which indicate solidification,

as a whiffy or tubular character of breathing. It is probably caused by alterations in the elasticity of the alveoli and their irregular expansion.

Now, if you can group several of these signs in any one case, and if dullness co-exist, and the space presenting these phenomena be limited in extent and one-sided, you may be sure that some solidifying alteration has taken place in and around the alveoli of that part of the lung. But if this condition be preceded by slight loss of flesh, sub-febrile symptoms, and with dry cough or a scanty flocculent expectoration, you may be pretty sure that you are dealing with the early stage of phthisis. But you only know your patient's present state; the future is masked, or may be altered by various other agents than those now evident to you. Physical evidence is always true, but the inferences may not always be correct. I have pointed out to you that even from this state of things there may be recovery; the alveoli may collapse, the chest-walls fall in, the morbid product in the lung undergo degenerative change, dry up, and be expectorated, and a little flattening and dullness alone betray the nature of the attack.

Carbuncular Inflammation of the Lip.

Dr. J. Milner Fothergill describes a case of this extremely dangerous disease, in the *Practitioner*. His treatment was successful, and merits study. The patient was a strong, middle-aged man. The lip was opened in several places, and the abscess on the left side of the nose laid open. The effect of the pain was to improve the pulse, which became slower and fuller under the stimulus. The pus that flowed was creamy and laudable. Both these facts were encouraging. The lip was dressed with a solution of carbolic acid, to prevent any putrefactive change in the pus that might give rise to poisonous products, which being absorbed might cause pyæmia. Fifteen drops of the muriate of iron were given, with five grains of quinine, brandy to eight ounces; fluid food *ad libitum* was ordered; and it was determined to procure sleep at all hazards, the last night having been almost sleepless. The tincture of opium was selected, there never having been any albumen in the urine to contra-indicate it, and half a drachm was given at once, with fifteen drops of tincture of digitalis to obviate too much sedative action on the cardiac ganglia; the asthenia being pronounced, it was decided to continue the laudanum till sleep was induced. At midnight forty drops more of laudanum were given, but still sleep was not procured; at 5 A.M. another half drachm was given, and sleep gradually came on.

On Saturday sleep was constant, and on the patient being wakened to take his food and medicines, he immediately dropped off again. During these waking intervals there was no delirium. The meteorism continued, so turpentine stupes were ordered. Half a drachm of laudanum to be given at bedtime. The lip was suppurating freely, and pus of good quality.

On Sunday, the 19th, the condition of matters was satisfactory. The patient took any amount of food given to him. The turpentine had lessened the meteorism very decidedly, and the proof of the returning tone of the intestinal muscular fibre was very audible. The belly, though still swollen, was soft. The soporose condition continued. The lip was discharging freely, and in order to obviate any septic poisoning as far as possible, fifteen grains of chlorate of potash were given with each dose of quinine and iron.

Monday; still improving; could raise the arms above the head. The intellect was unclouded, the muscles were steady, the tongue clean, the bowels had moved freely, all fetor had gone from the breath, and the general condition was all that could be desired. Indeed, the picking up was even swifter than the downward progress. The patient made an uninterrupted recovery; the lip gradually diminishing in size, and the scars small and unimportant.

On Friday, the 17th, the condition of the patient was very grave, and if sleep had not been procured by active measures the case would soon have been hopeless, Dr. Broadbent's experience at the London Fever Hospital leading him to take a rather gloomy view of the case, for in his experience of facial carbuncle, namely, eight cases, only one recovered, and in that case the lip "ripened."

What Determines the Sex of Children.

The last number of the *American Journal of Obstetrics* says that Prof. Mayerhoffer, of Vienna, believes that the sex is determined solely during conception by a vital interchange of quality between the ovum and semen. A number of facts can be explained only by assuming that the human ovum during conception, under all circumstances, seeks to enforce the female sex, and the semen, with equal persistence, the male. Whether the product of conception becomes a boy or a girl depends upon which of the two contestants, the semen or the ovum, gains the ascendancy. These facts are the following:—

1. The influence of the relative ages of the parents on the sex of the children is proved beyond doubt by statistical researches. Hofacker, Sadler, and Gohlert found that in those marriages in which the father was older than the mother, a considerably larger proportion of boys were born; but that when the parents were nearly of the same age, or the husband was younger than the wife, the number of girls largely predominated. The excess of the male population in Germany is thus explained by the fact that in that country, as a rule, the male sex marries later in life than the female.

Therefore, the man as well as the woman takes part in the determination of the sex, and the human ovaries neither contain male nor female ova, nor does the semen contain male or female spermatozoa.

In proof of the definite decision of the sex

during and not after conception (that it does not occur before conception has been settled above), three observations, taken from breeding animals, are quoted:

2. The degree of nutrition (physical development) of the male and female mammal appears to exert an influence on the sex of the foetus. Martegoute found that those sheep which brought forth female lambs were of average greater weight than those delivered of rams.

3. Preservation of the semen by infrequent coition probably favors the formation of the male sex during conception. Thus, at the sheep-breeding establishment of Blanc, in France, it was annually observed, that during the beginning of the breeding season, so long as the ram still possessed his full vigor, more male than female lambs were produced; as soon as the number of ewes in rut rapidly increased and the ram gradually exhausted his strength, female lambs predominated, to make way again for an excess of male lambs when the height of the season passed off and the powers of the ram were less taxed.

4. It is also exceedingly probable that mammals, cows, for instance, which have become impregnated during the early part of oestruation, more frequently bear female, others impregnated near the end of oestruation, male calves (Thury). This fact—that the time of impregnation, whether at the beginning or end of heat, exerts an influence on the sex of the foetus—needs additional confirmation. It may be explained as follows: The longer the ovum has been separated from the ovary, and the nearer it, therefore, approaches its dissolution, the more it loses vigor to assert its sex during conception.

Successful Treatment of Meningitis.

In the *British Medical Journal*, Dr. J. Cross reports this case:—A boy, aged six, had had persistent vomiting and headache for about a week before he was seen. The headache was paroxysmal, and so severe as to awaken the child from sleep; it was at first occipital, but afterward frontal, and during the paroxysms the brow was very contracted. There were strabismus and dilated pupils, but they were equal and fairly sensible to light. There was also great intolerance of light and sound. The abdomen was retracted, and the *tache cérébrale* could easily be produced. The pulse was irregular and weak, and occasionally intermittent, and the respiration unequal and sighing. Improvement took place steadily under hydragryrum cum creta in grain doses, at first every four hours, and afterward three times a day, and two grains of iodide of potassium, with three grains of the bromide, thrice daily. When convalescence began, iodide of iron and cod-liver oil were administered. A curious feature of the case was that, when he was first able to get up and move about the room, he walked with a jerky, shuffling gait and back bent almost double; but he eventually walked quite steadily and perfectly erect.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—Of recent English publications, we may mention Sir J. R. Ophthalmic Surgery," by Mr. B. T. Lowne.

—In France, a very important work on "Diseases of the Larynx," by Dr. Faurel, has appeared, profusely illustrated; and M. Bouchut's important researches upon cerebroscopy have taken the form of an atlas ("*Atlas d'Ophthalmoscopie Médicale*").

—In Germany, should be noted the recent work of Dr. Hermann Baas: *Grundriss der Geschichte der Medicin und des Heilenden Standes* (Outlines of the History of Medicine and of the Physician's Status). In his first division he treats of the medical theory and practice of those peoples whose development in this direction is closed—the primitive peoples. In his second, he handles the medical theory and practice of those peoples whose development in this direction either was, or still is, progressive. This division contains four periods—1st, that of the Greeks and Romans down to the fall of the Western Empire; 2d, that of Europe down to the discovery of America; 3d, that of Europe and the colonies down to the close of the first French revolution; and 4th, that of the present century all the world over. Treated as Dr. Baas treats it, this history amounts to something like a text-book of universal pathology and therapeutics. In the historical survey of the physician's status, he gives a great deal of curious, entertaining, and always valuable information touching the practitioner's relations with his clients, the fees given, the mode of prescribing, and so forth. Portraits of eminent medical men are inserted.

BOOK NOTICES.

Transactions of the Medical Society of the State of Pennsylvania. Volume xi. Part i. 1876. pp. 376.

This volume of the Pennsylvania Transactions impresses us as one of more than usual

excellence. It differs from most State reports in *not* being a volume made up of essays and papers on various topics, more or less of which have already appeared, in whole or in part, in the periodical literature of the day, but is, in fact, a series of reports from the various county societies, on the sickness, epidemics and treatment of the previous year throughout the State. This plan for a State report is very much the best, and it is one which deserves to prevail over the species previously mentioned. Each county Society appoints a Committee, whose duty it is to correspond with the various members of the Society, and collect from them the facts, which are summarized in a report to the State Society.

The matter in the volume is excellent. The "Address in Obstetrics," by Dr. Davis, of Wilkesbarre, introduces a new mode of dealing with placenta prævia. The "Address in Surgery" is an admirable epitome of progress, by Professor Agnew; that in hygiene a very pertinent comment on the importance of drinking water, by Dr. Benjamin Lee.

The county reports are full of good suggestions. We have marked a number to refer to hereafter, and we may introduce a few at this time.

Dr. J. H. Musser, of Lampeter, describes a case in which he made *one hundred and seventy-seven* hypodermic injections of ergot for uterine tumor, with very gratifying success.

The reporter from Lycoming Co. (name not given) says he has tried the abortive use of quinine in whooping cough, as described in this journal, and failed. He prefers belladonna.

Dr. B. E. Mossman states that, from his experience, chloral will "very easily, quietly, and completely dispose of a paroxysm of intermit-tent." Our readers may recall that Dr. B. Lee said something of the same kind in the *REPORTER* last spring.

Dr. A. S. Harshberger recalls a once-lauded mode of treatment when he tells us that very good success has attended his treatment of chronic rheumatism with pokeroor—the *phytolacca decandra*.

Dr. A. Rothrock, who has practiced in Mifflin County since 1830, gives some very judicious and valuable observations on the changes which diseases have undergone in that locality during the half century (nearly) he has watched them. He makes the pregnant observation that at pre-

sent all diseases are becoming more inflammatory in their character. Hence, he thinks, with Dr. Hiram Corson, of Montgomery Co., that bleeding is demanded more frequently than it is performed.

The report of the latter is characteristically pointed and vigorous. He illustrates the danger of *not* bleeding, and gives valuable therapeutic hints.

The Northampton County report has a vivid description of gastric vertigo, from the pen of a physician, himself the victim of this most disagreeable complaint. The same report has commendations, from Dr. Green, of the use of salicylic acid in ulcerations of the meatus auditorius, and in fetid perspiration. In the latter he uses, as a lotion, two drachms of the acid to a pint of water; he does not say whether the relief is permanent or temporary only. In poisoning by *rhys toxicodendron* he finds the sodium chlorate more effective than the potassium salts.

A very clear description of the epidemic of scarlatina in Reading, and that of typhoid in Philadelphia, may be found in the respective county reports. They are stirring sermons on cleanliness and temperance.

Case Book, with Hints as to Case-taking. By George Brown, M. R. C. S., etc. Cloth. Price 60 cents. For sale at the office of the MEDICAL AND SURGICAL REPORTER.

This is a book of convenient size for carrying in the pocket, printed and ruled to allow four pages to each patient, if so much is required. About thirty patients are thus provided for, when the book can be laid aside and another one commenced. The "Hints on Case-taking," which occupy the printed matter at the beginning of the book, present a brief summary, or set of memoranda of the points to observe and note in medical and surgical cases. It is an extremely practical and useful feature for students and young practitioners—and for some old practitioners, too. All alike would do well to get into the habit of keeping such records of their cases. Experience is trebled in value by writing it down, and from time to time reading it over.

The book is on fine and thin paper, well surfaced, and will be popular always to one who tries it once.

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THE MORTALITY FROM SYPHILIS.

The agreeable (?) view defended by certain English and American *syphilophiles*, to which we adverted in a previous number (see MEDICAL AND SURGICAL REPORTER, cur. vol. p. 278), to the effect that the world is becoming rapidly inoculated with syphilis, and that the disease is thus losing its power, must not cause premature rejoicing. We are a long way off immunity yet.

Perhaps, indeed, much of the injury the disease works escapes us, through defect of observation. A few years since an able New York syphilographer, in a series of articles, maintained that syphilis does not, in the mass, shorten life, and that having suffered from its constitutional forms should not be a bar to one's being taken as a "first-class risk" by a Life Insurance company.

It is true that very few deaths appear in the mortality reports under "syphilis." But it is noticeable that some of the most favorably

situated observers have of late recorded very gloomy prognoses in certain venereal lesions.

Dr. ALFRED WILTSHIRE remarks, in the British and Foreign *Medico-Chirurgical Review*, there "seems to be evidences, from the pathology of the nervous structures, that mothers who bear syphilitic children without themselves displaying the ordinary phenomena of syphilis are liable to cerebral and spinal lesions at periods long remote from the time of the infecting pregnancy."

This throws an ugly light on the possible origin of a good many of the nervous breakdowns so common in multiparous females. How often is paresis, ataxy, central softening, and the like, the results of unsuspected inoculation?

Again, Dr. CHARLES MAURIAC, Surgeon to the Hôpital du Midi, Paris, in his late brochure on syphilitic laryngitis (*Leçons sur les Laryngopathies Syphilitiques Graves*, 1876), holds the following decidedly disturbing language over one of his patients:—

"If this case of syphilis was not malignant from the first, it offered at its very commencement, and in its successive manifestations, a gravity which, far from diminishing, as we sometimes observe, only increased with time. What do we, indeed, remark? After a primary sore, which was ulcerated, but was rapidly cured, there arose a generalized eruption, which simulated small-pox—that is, which was pustular: at the same time the throat, and especially the larynx, were gravely affected. Then, almost without interruption, a new eruption arose. It was circumscribed, but ulcerated the skin deeply and attacked the testicles. I put myself in the position of giving a prognosis in judging of such a process as this. Well, I tell you that syphilitic determinations of an ulcerative nature, which attack time after time the skin and mucous membranes, ought to make us generally foretell a long future of deep lesions and grave accidents, even when they may have been rapidly amended, or cured by specific treatment; even when, as is the case here, the general strength of the organism has been respected.

"You will object, perhaps, that medication by means of mercury and iodine commenced from the beginning of the disease would have doubtless put to flight these accidents. I agree to this to a certain degree, but I have so often seen cases of syphilis treated in the best manner only be superficially cured, and pursuing these evolutions in spite of all our therapeutic

tentatives, that I believe in the fatality of the eruption in the benign forms, as well as in the grave forms of the disease.

"This is a way of looking at affairs which is, I confess, but little reassuring; but, at the risk of passing for a pessimist, I frankly confess to you, because I am convinced that this is the expression of the reality. Our patient will furnish a proof of this. As he had done so well under treatment during his stay in hospital, he did not fail to continue it after his departure. If his syphilis had been ill-treated, and even rather abandoned to its natural evolution during the first thirty months, it had been attacked since that time on all its manifestations by mercury, and especially by considerable doses of iodide of potassium. The use of this latter remedy had not been abandoned for the last year. Our patient has only abandoned it from giving up the war in despair, and when he saw he could not regain his voice and right testicle in their normal condition."

Dr. T. R. STURGIS, of New York, has discussed some of the points of hereditary syphilis quite carefully. He confesses it is very difficult of solution. In a paper which was printed in the *Chicago Medical Journal and Examiner* last June, he gives some striking examples of apparently healthy mothers having syphilitic children.

In regard to some statistics of KASSOWITZ, he remarks:—

"We cannot be positive that syphilis will not reappear after many years' latency, and I will only remind you of Fournier's case, reported by him in *L'Ecole de Médecine*, August 30th, 1875, and quoted in *Lyon Médicale* of September 19th, 1875, to show that it does. Seventeen years of latency did not protect the unfortunate patient (who, by the way, was a medical man) from a sudden explosion of nervous syphilis with death. It is for this reason, I say, that even though no lesions are visible for four years, the length of time that some of KASSOWITZ's cases were under inspection, that fact proves nothing, nor does it disprove the possible existence of syphilis."

This, too, is rather a gloomy outlook, and it seems confirmed by a statement lately uttered by that veteran syphilographer, CHARLES R. DRYSDALE, of London, to this effect:—

"I have myself, on several occasions, witnessed the recurrence of long-dormant syphilitic symptoms after the performance of operations, or after wounds of any kind, and there can be no doubt that rupia is not very unfrequently reproduced in syphilitic patients by traumatism. Last winter I witnessed such an

effect in the wards of M. VERNEUIL, in Paris; and that great surgeon, who is especially alive to the importance of becoming acquainted with the diathesis of any patient on whom he is about to operate, has tempted, by his remarks on this important subject, one of his pupils, Dr. PETIT, to write a pamphlet on the effect of syphilis on wounds. The teaching of such cases as he refers to is, that special treatment should be made use of when any unusual results occur after operations."

In spite of the enormous industry which specialists in syphilis have manifested, there are worlds before them yet unconquered, hidden conduits of the venereal poison which, as yet, we do not dream of.

NOTES AND COMMENTS.

Therapeutical Notes.

ASTHMA.

Dr. W. B. Furman says, in the *American Medical Weekly*:—

The following remedy I can recommend as sure to quiet any paroxysm of asthma for a time, and in uncomplicated cases I am seldom called on to give more than one or two doses:—

R. Sulph. atropiæ,	gr. j.
Aque bullientis,	3vij. M.
Dissolve and add—	
Sulph. morphiæ,	gr. xv. M.

Sig.—Use from six to ten drops hypodermically.

This preparation may, with the utmost safety, be used during the most severe paroxysms, and never fails to gratify the suffering victim and satisfy the physician.

The above solution will keep indefinitely, with the addition of two drops of carbolic acid. I will simply add that the *grindelia robusta* has, in my hands, so far proved itself unreliable in asthma.

PICRIC ACID FOR SORE NIPPLES.

In an article published in the *Courrier Médical*, Dr. Charrier recommends the use of picric acid in solution as a cure for sore nipples. The application has the effect of rapidly removing the pain, and checking the morbid secretions. The acid is used in the following manner:—It is important to employ the chemically pure product, perfectly free from soda, and solutions of different strength are prepared. The first, or concentrated, solution is made of three drachms

of picric acid dissolved in two pints of water; and the second, or weak, solution only contains sixteen grains of acid to the same quantity of water.

To apply the lotions, the nipple is first well cleaned and washed with a fine sponge and lukewarm water; then a very fine camel's hair pencil, dipped into the concentrated solution, is gently passed over the chapped and inflamed parts. This is done once a day, in the morning; and each time after the child has been suckled the nipple is immersed during three or four minutes in a small glass filled with the weak solution.

The Quantity of Drugs Used.

At the meeting of the American Pharmaceutical Association this fall, it was stated that the total imports for the fiscal year were \$476,000,000, while the total exports were \$596,000,000, leaving a balance in our favor of \$120,000,000.

The character of many of the powdered drugs of the market was alluded to, and their quality hinted at by the comparative prices at which they were sold, and the value of good crude drugs. Borax was exported to the extent of 3,000,000 pounds, while California and Nevada have produced in all during the year 6,000,000.

The Pacific Coast has furnished during the year 54,000 flasks of mercury, while less than that has been produced by all the other nations of the world combined. The product of opium was stated to be smaller in amount for the year than was anticipated, and it would probably advance in price still further.

The Cure of Spermatorrhoea.

Dr. Uitzmann, of Vienna, contributed some articles on this subject to the *Medicinische Presse*, of that city, last summer. He commences by insisting upon the gravity of the disease, and the necessity for active treatment. The most efficacious measure is catheterism; but one must use a large catheter, of metal, and it must be inserted every day and allowed to remain in for twenty or thirty minutes, and this treatment must not be interrupted for six or eight weeks.

Next to this in efficacy is local cauterization. Dr. U. does not use the pure nitrate, but cocoa butter containing one-twentieth part of nitrate of silver, six grains of which mixture he intro-

duces by means of Dittel's positor. When the parts are too irritable for this, he employs—

R. Morphiae muriat.,	gr.iss
Acidi tannici,	gr.vii
Butyri coccae,	gr.xxx. M.

Divide into six parts.

For internal treatment he has found nothing better than full doses of ergot.

Nitrite of Amyl.

The *Journal of Mental Science* says that Dr. Otto has tried nitrite of amyl in nine cases of epilepsy, but without success. He used it in one case of religious melancholy. The patient inhaled five drops every two hours, and in eight days was very much improved, and she is now almost recovered. Dr. Hösternann, in Vienna, used the amyl in eight cases of melancholia; in four of these there was permanent improvement. In three there was a temporary improvement, and in one case the patient got worse.

Dr. Adolf Schramm has made some researches upon nitrite of amyl upon melancholia, and in some cases found an improvement, especially where anæmia of the brain appeared to be present, though amelioration was also noticed where lesion and congestion of the head were believed to exist. If amelioration does not at once appear the remedy need not be persevered in. At best, it is only palliative, and even as such it was found inferior to opium.

On Phosphorus as a Remedial Agent.

A volunteer paper on this subject was presented to the American Pharmaceutical Association by Dr. E. R. Squibb, Jr. It was opened with very full accounts of its reputed therapeutic properties, as stated by various authors of Europe as well as of this country. Both sides of the question were fully drawn from, and the comments of the writer were mainly as to the character of the formula for its administration. He does not advocate, but rather rejects the idea of giving it in the form of pills or in volatile liquids, and maintains that a fixed solvent, such as some of the oils, is the most appropriate. His own preference was for cod-liver oil as a vehicle, and his careful experiments are detailed, giving full particulars of the mode of treatment by which it is freed from air during the process. The preparation does not keep well in quantity, nor should it be kept

long. The process can only be explained by too much detail for these columns at present. The solution exhibited was stated to contain one per cent. of phosphorus. Pills may be made from this oil, and some were exhibited, and their formula was described. In these pills there can be no possible separation of phosphorus in solid form.

The Examination of Cacao Butter.

Mr. G. Ramsperger, of New York, states that he prepared cacao butter by expression, by ether and by bisulphide of carbon, as a standard and for the application of tests. The specific gravity of the three samples, though made from the same cacao butter, was not uniform; therefore the specific gravity cannot be considered a test.

Pure cacao butter is soluble quickly in two parts of ether at the ordinary temperature, forming at first a clear solution, but after a while it sometimes separates into two layers. Ether was found to be the best test of pure cacao butter, as neither small portions of tallow, wax, nor paraffine, if in combination, give a clear solution in two parts of ether. Ox marrow is not thus affected, but gives the clear solution as does cacao butter. Of twelve commercial samples tested, nine were pure; the other three were not much adulterated.

On Cotton-root Bark.

In a report on this article by Mr. J. M. Lloyd, of Cincinnati, he details many very careful experiments in the manufacture of fluid extract of cotton-root bark, both dry and fresh. He gives preference to an alcoholic menstruum, but obtained satisfactory results in making an extract which, in his experience, *never gelatinized* when the menstruum used was alcohol ten parts (fluid) to glycerine six parts (fluid). Numerous trials by physicians indicate plainly the unreliability of any preparations made from the dried cotton bark. On the other hand, when the fresh bark was used, and a fluid extract made from this was tried carefully by a large number of physicians, the almost universal report was favorable, the action being to facilitate parturition; and in other cases, where it was sought to re-establish suppressed menstruation, it scarcely ever failed. His conclusions, therefore, point clearly to the use of the fresh bark only.

CORRESPONDENCE.

CLIMATE AND TRAVEL IN THE TREATMENT OF CONSUMPTION.

Letters by an Invalid Physician.

I.—LEAVING HOME.

ED. MED. AND SURG. REPORTER:—

By talking with invalids from lung affections in various parts of the world for the past two years, I have been struck by the similarity of the story the majority of them tell. As my case shall serve as the text of these papers, I will briefly tell it.

There had been a greater or less degree of languor and lassitude from May until July, when a slight attack of laryngitis made its appearance. I grew thinner daily, but laughed at the idea of my friends that something serious was the matter, thinking I was only a "little run down," and that two weeks' rest anywhere away from home and profession would bring speedy convalescence. A week in July at the high, dry country seat of a friend did bring some increased strength and appetite; but the succeeding week at Cape May witnessed a severe attack of bronchitis. Recovering partially from this, two weeks were spent at Saratoga and Lake George, with the effect of again bringing me home with a bronchial attack, and the last straw was finally attained by taking my baby to Atlantic City for its health. I had hardly come within smell of the salt marshes at this place, when my bronchial trouble was brought back with redoubled intensity.

Reaching home (Philadelphia) almost exhausted, and sweating profusely at night, it occurred to me for the first time that something serious might possibly be at the base of these frequent attacks, and I consulted Professor Da Costa. The result of his examination convinced him that the case was of so serious a nature that subterfuge was dangerous, and that whatever was to be done to save life must be done promptly and fearlessly. With a gentleness and candor that afterward doubly endeared him to my love and esteem, though the revelation was almost deadening at the time, he informed me that deposit had already made its appearance in both lungs, and that he knew of but one chance for my salvation, and that was immediate suspension of everything like work and change of climate.

I had a charming home. A little baby not yet three months old cooed in the nursery; there were troops of friends, and more than the average of professional success that falls to a young doctor after eight years of practice. Not only were all these to be left (my physician placed Egypt or Algeria above all other climates for my condition, and my wife's physician gave it as his judgment that it would be safer to leave baby at home), but the despondency caused by the thought that I was parting with them forever so prostrated me that, for a time, it

seemed as though I would not live even to make the effort to get away.

So the beginning of October, 1874, found me. And now appeared one of the first stumbling blocks placed in the way of one, especially a physician, ordered away for so grave a complaint. Of the many different medical friends who came to say good-bye and add hearty wishes for recovery, scarcely two united on the same place as the one best suited for me to go. Minnesota, Colorado, Indian Territory, California, Texas, Asheville, N. C., Aiken, S. C., the pine woods of Georgia, and Florida were recommended in this country. Abroad, Cuba, Isle of Pines, the Bahamas, the Bermudas, Santa Cruz, Madeira, the South of England, the Riviera (the strip of coast between the Mediterranean and the Maritime Alps, extending from Hyeres to Pisa), Italy, Sicily, Malaga in Spain, Algeria and Egypt were variously extolled, in many cases by those who had visited one or more of them. I was equally advised to "rough it," and to "take it perfectly easy;" to live on the sea or to live on the land; to stay altogether in one place, or to travel around.

As these various places and suggestions were given by those whose only object was to benefit me, they were received with no thought but gratitude at the time, but often since, either in visiting the places or practicing the advice, it has occurred to me what "mixed" notions prevail, even among the most intelligent physicians, concerning climate and the conduct of a patient after his recommended haven is reached.

In my travels I have seen consumptive men walk, horseback-ride, or drink themselves deliberately to death, each thinking he was strictly carrying out the orders of his physician.

Leaving home should be done without any excitement. It is wearing on well men to bid good-bye to a large circle of friends, and it absolutely aggravates the symptoms of sick ones. Preparations for departure should be made as quietly as possible, and the departure itself should be made as though secrecy were an essential part of the treatment. Reference is here more strictly made to those seriously ill. I saw a sick man on a Cunard steamer absolutely sinking under the good-byes, God-bless yous, and tears showered upon him by a multitude of friends; and among such a number it is an almost certainty that one or more of the over-zealous will put in an "if you never come back," or suggest paradise or purgatory as possible ports of entry.

The best attendant on a sick man is wife, mother or sister, in the order mentioned. A woman, in the absence of husband, should always have a woman attendant.

The most melancholy cases of sickness I have seen in my travels were those who had been sent abroad alone. Lonely and despondent, they languished in all the health resorts, the object always of a kindly sympathy, but no less showing that want of care that love and companionship alone can furnish.

A man-servant is a better attendant for a man than a male friend, even though the latter be a brother. The one is always on hand; the other will say, "Well, old fellow, you're getting along all right, I'll go out for a few minutes," and a disappearance for a half-day, or from supper to bedtime, marks the measure of his allegiance. It is so because it is human nature. A woman is happier with the object of her care, and if she leaves it for an hour, returns in a half, and then blames herself for the length of time away.

A knowledge of both the quantity and kind of baggage necessary for an invalid should be possessed by every physician sending patients away from home. I remember, on stepping into a tailor's at Paris, making the remark that I wished material suitable for the climate of Egypt. A traveled gentleman, who stood by, informed me that in winter I would need the same clothing in Cairo as in Paris. This was a surprise to me, as I imagined that even in the south of Europe, much less anywhere in Africa, thick clothing of any kind would prove nothing more than an incumbrance. I had reason many times afterward, in Algeria, to be thankful that I had brought along a good thick overcoat. And this opinion as to clothing I found general among those visiting a warm climate for the first time in winter. There is not a health resort on the face of the earth where a good, substantial set of merino or flannel underclothing, and a good suit of stout tweed, is not acceptable in winter. I believe Americans contract many serious diseases of the lungs by the fashion the majority of them have of wearing gauze underclothing in summer. It offers no protection to the body in draughts, or during the evaporation that occurs after sweating, and it is questionable whether it is any cooler than light flannel underwear.

A loose, roomy sack or Ulster overcoat, a thick set of clothing, the coat after the pattern of a navy pea-jacket, suitable for the sea or night travel by land, and a traveling suit of Scotch tweed, suitable for riding or walking, are alike sufficient and indispensable for the invalid. Two sets of thick flannel or merino underwear, two sets of medium thickness, a half dozen pair of woolen socks, a pair of thick-soled laced or buttoned gaiters, a pair of slippers, a woolen wrapper, a half dozen muslin shirts with wristbands and collars, handkerchiefs and a hat of soft material, complete the outfit. A woman's wardrobe can duplicate with dresses and appropriate underwear the above. English people generally carry a rug, which can be thrown over the lap while traveling, or used as a cover to throw over one while napping it by day in the house.

A small medicine chest of leather is a most valuable traveling companion. It saves night visits to drug store and doctor, and comforts by its presence. I have one ten inches long, five wide and four and a half deep, that contains every essential for ordinary sickness. Prepared mustard leaves, quinine, tincture of iodine and

paregoric are the articles in most frequent use. A teaspoonful of the latter is invaluable in the chilliness that oftentimes seizes consumptive patients while traveling. All the articles I have named above, leaving out the rug, overcoat and the suit the patient wears, can be easily packed in a medium-sized leather trunk (the best of all trunks), and leave abundant room for toilet articles and some books.

One trunk and a small parcel for the hand is ample for one person. More means extra fatigue, expense, lumbering up your room at your destination, and taking articles around that are really not wanted. One medium-sized trunk can always be carried in the state-room of a steamer, or on the cab or stage running from boat or cars to the hotel. It arrives with you, its contents are at hand, and there is no anxiety arising from its delayed transit.

These pages may seem trivial, but they are written with an earnestness that I hope may be equaled in their reading. They are part of the unwritten information possessed by many of the medical profession, but learned by many an invalid only after sometimes bitter experience. It is one thing to diagnose, another to treat, and essentially a third to know when, where, and how to send a consumptive away from his home for the benefit of his health. When I say a consumptive, I mean one suffering with wasting of the body, the result of organic disease of the lung structure and its prolongations; it matters not whether it is an exhausting bronchial catarrh, a cheesy pneumonia, hemorrhage, or true tubercular deposit. Any or all of these lead down to death, if not arrested. There is no doubt that change and climate, and out-door life, not only often arrest, but cure the worst of these conditions. My own life has been prolonged by favorable climatic surroundings, and my experience, and those with whom I have associated, similarly affected, will form the subject of subsequent papers.

Saranac Lake, Adirondack Mountains, November 5th, 1876.

The Sulpho-Carbolate of Sodium in Diphtheria.

ED. MED. AND SURG. REPORTER:—

During the prevailing epidemic of diphtheria in our city, I have had an opportunity to note the beneficial results of the use of the sulpho-carbolate of sodium in the treatment of that disease.

In fourteen cases which have been treated by me I have given it with satisfactory effect in every case.

I commence the use of the remedy as soon as the disease is recognized. I give from three to ten grains every one, two, or three hours, according to the condition of the patient. I combine it in some cases with tinct. ferri mur., or sulph. quiniæ. It may be given in any aromatic water or syrup, but I prefer the syr. aurantii cort. In several cases where it was used it seemed to exert almost a specific effect. Topical applications were also used, of which I prefer the argenti nitras, applied either in a

strong solution, by means of a probang, or the solid stick applied direct to the parts.

The following is a typical case, illustrating my course of treatment:—

S. G. T., aged five years, was first seen by me on Monday, November 13th. His condition then was as follows:—Pulse 140; temperature 104°; skin dry; tongue coated with heavy white fur in the centre, with a bright red edge; deglutition was performed with difficulty; the fauces were swollen, with diphtheritic patches on both tonsils.

I ordered,

R. Sulph. carb. sodii,	3ij
Quinias sulph.,	3i
Acid. sulph. aromat.,	3i
Syr. aurantii cort.,	ad. 3iv. M.

A teaspoonful to be given every three hours.

The throat to be showered, by means of a syringe, once an hour with a mixture of chlor. potass., mur. tinct ferri and water.

On Tuesday his pulse was 120. Morning temperature, 102°; evening temperature, 102½°. Applied solution of nitras argenti, by means of probang, to the throat. On Wednesday, P. M., there was no appearance of any diphtheritic patches. The pulse had come down to 88, and the temperature to 99.0°.

On Thursday my patient was up, and able to eat dinner with the family.

The above case yielded more rapidly than any other which I noted, but it serves to exemplify my method of treatment. I consider the sulpho-carbolate of sodium an invaluable remedy in the treatment of this disease, and if other physicians, who may try it, meet with the success that I have in its use, they will undoubtedly feel gratified with the result.

I have not found much effect from its use as a topical application. It proves to be a stable salt, parting with its acid only when chemically acted upon by the fluids of the body.

Providence, R. I. W. E. ANTHONY, M. D.

Traumatic Tetanus.

ED. MED. AND SURG. REPORTER:—

On the 31st of last July, Mr. M., aged 37, farmer, came into my office, and gave the following history of an injury of his right little finger. Some eight days before, it was fractured midway between the first and second joints. Soft parts broken out on dorsal surface. Was dressed by his family physician, and for the first three days was very painful, and after that not in the least so.

The dressings were not all removed until the 30th instant, when the vitality was found to be entirely destroyed up to the metacarpo-phalangeal articulation. He was chloroformed and the finger removed above the head of the metacarpal bone. The wound did nicely, and he was out more or less of the time, looking after his business interests. On the 12th of August he came in, twelve miles, to attend market, and before he left town he came in and said to me

that he had pain in his stomach, with slight diarrhoea, and incidentally remarked that he felt sore and stiff all over, and thought that he had taken cold, as the day was wet. I gave him treatment and cautioned him against any further exposure, and requested him to let me know if his present symptoms did not speedily disappear.

I heard nothing from him until the 16th inst., when I received a message to visit him. Found fingers of right hand strongly contracted, and the hand rigidly flexed upon the arm, the lower jaw perfectly stiff, and, in fact, the entire muscular system was in a state of rigid contraction; and when he attempted to move he would have a sharp pain shooting from the wounded finger into the back, and from thence into the stomach, with a quick, spasmodic movement of the head backward and sideways. "Facies tetanica" strongly marked; temperature but slightly augmented; bowels well opened; kidneys acting fairly; skin dry and dark, with imperfect capillary circulation; tongue red but not coated; nights restless and wakeful. Gave him two grains of quinine and one grain of opium, and from five to eight grains of chloral hydrate alternately every ninety minutes, with all the rich milk and whisky he could drink without offending the stomach, mixed in the proportion of one to three parts. Enjoined quietness, and visited him again on the 18th. He had passed the time with less pain; had enjoyed more sleep; there was some improvement in the capillary circulation; had not had any hard spasms; had taken about four ounces of the mixture of milk and whisky every two hours; his muscles were quite as rigid as at my first visit. Added one-half grain of opium to the powders, and increased the doses of chloral to twelve grains, given as before. Saw him again on the 21st; has had more sleep; skin has been warm and moist most of the time; has taken the milk and whisky with some relish; thinks the muscles of the neck and jaw are not quite so rigid; bowels have been freely opened. Treatment continued, with slight increase of opium and chloral.

I visited him again on the 24th and 27th, and suffice it to say, that from this on he continued to improve, without any change in the treatment. From the 27th the remedies were given in gradually decreasing doses for the next week.

I have seen quite a number of these cases in the army, and, whether from grave or trifling wounds, they invariably proved fatal, and the recovery of one is a matter of general interest to the profession. I do not claim any originality in the treatment; all of these remedies have been used before; the combination may or may not have been the best. It is of primary importance that the remedies be given in such quantities and in such time as to secure the best results, and to this end there should always be a person in charge who can comprehend the case—the object aimed at is the treatment—and who can use discretion in timing

the remedies, as well as tact and persistence in giving the medicine and nourishment.

Erie City, Pa. WILLIAM FAULKNER, M. D.

Placenta Centralis, Complicated with Convulsions.

ED. MED. AND SURG. REPORTER:—

On the morning of July 8th, 1876, a violent pull at the bell summoned me to the door, to find the husband of a patient of mine, who stated that his wife was flooding to death, and was having, as he expressed it, fits. I made all haste to the scene of action, and found Mrs. W. with a pallid face, very feeble pulse, hardly perceptible at the wrist, with great loss of blood from the uterus, and with a convulsion upon her when I entered the room. On examination per vaginam, I found a case of placenta centralis, with a doughy feel, the os dilated to the size of a silver half-dollar. The bright rays of a July sun beaming upon the roof and windows of a two-story house, run the thermometer up to 98° in the room. My patient was tossing herself about the bed, with great thirst, and a rapid, feeble pulse, 130 beats to the minute, with great oppression in breathing, which was accompanied by prolonged moans. Temperature under the tongue 98½°.

As there was no time to lose, and every moment of delay jeopardized the life of the patient, I made up my mind to deliver the patient at once. Drawing her to the edge of the bed, I placed her on her back, with her knees supported by two assistants. With my left hand I made pressure upon the abdomen, forcing the uterus as low down into the vagina as possible, and making firm pressure to hold it in its position with my right hand. Forming a cone, I gently forced my fingers, and then my hand, into the uterus, tore through the placenta, and by turning the hand about in the uterus, succeeded in less than an hour in applying the forceps, and by gentle traction delivered the child alive, the placenta coming away with the child.

While dilating the os, I placed the nurse at the head of my patient, armed with half an ounce of nitrite of amyl, and directed her to watch the patient closely, and when she saw any symptom of convulsions to let her breathe six or eight drops of the amyl nitrite, dropped upon her handkerchief, or to inhale the nitrite from the bottle. By this means my patient was kept quiet and free from convulsions while dilating. After the child was delivered, by the use of stimulants and beef tea she reacted, and in a short time the rapid and feeble pulse was beating quietly. Having given her two teaspoonfuls of fluid extract of ergot before the delivery of the child, this caused the uterus to contract firmly, and from this time she recovered without a bad symptom.

This patient is the mother of five children, and from what I could learn of the history of the case, she had had no flooding up to this attack, and said that she had never before, with her previous pregnancies, felt so well as she did with

this child. On the morning when she was taken suddenly with flooding, she was making up a fire to cook breakfast, and brought up a bucket of coal from the cellar; as the night had been excessively hot, she had not slept, and felt fatigued, from the want of sleep. When she reached the top of the cellar stairs she was suddenly seized with a gush of blood; so great was the flow, she fainted, and was immediately taken with convulsions, and had to be carried up stairs to her bed. I was sent for immediately, and found her in a convulsion when I entered the room.

Upon consulting Leishman, Meigs, Hodge, Cazeaux, Byford, Bedford, Longshore, Simpson, Churchill and others, placenta prævia complicated with convulsions is not mentioned, and the treatment I adopted in this case, in the delivery of the child in less than an hour, certainly saved the lives of both the mother and child, and shows the effect of the nitrite of amyl in the almost instantaneous checking of the convulsions.

Philadelphia. RUFUS H. HINTON, M. D.

Arrest of Mothers with Children at the Breast.

ED. MED. AND SURG. REPORTER:—

An interesting discussion of the above thesis appears in Leipzig, a short review of which will place before you its more important points. The writing is in the form of a memorial, and bears with medico-legal force upon those cases in which it is a question of the arrest of mothers with children at the breast. It was obtained by special decision, in a case of this kind, that the enforcement of punishment against the mother should be delayed until, according to medical opinion, the weaning from the mother's breast could take place without damage to the child. The mother in question attempted to abuse so long the leniency allowed, that she wished to nurse the child for two years; this naturally is not allowed by legislation. Dr. Fürst, of Gräfenberg, reasons upon the following basis: Weaning is either necessary, naturally, as soon as the secretion of milk becomes sparse, or according to will, artificially, when the secretion lasts for years. If the child is not capriciously restrained from the breast, the consequences for the child are measured according to the following three periods of lactation:—

First period. From birth to the eighth month. The mother's milk is of such consistency, and present in such quantity, that it constitutes the only nourishment of the child. The child should not be weaned unless in case of illness of the mother. Under no circumstances can the weaning take place suddenly.

Second period. To the end of the child's first year of life. The mother's milk is thinner, not so rich; it still constitutes an essential element of the child's nourishment, and protects the latter, in sickness, from death. The child should not be weaned; at least, sudden weaning here also is followed by fatal vomiting and diarrhoea, or by atrophy.

Third period. Into the child's third year of life. The milk, although still tolerably rich in quantity, is so thin that it nourishes the child weakly; it is there, however, when demanded, and is taken gratefully; it plays only a subordinate part in the nourishment of the child. Sudden weaning here is followed by no harm to the child. In general, harm very readily befalls a child when it is weaned in the first year of life. Most harmful is sudden weaning, and, indeed, not only for the child, but also for the mother. The consequences for the latter can always be prevented, if a period of from two to three weeks be allowed her for weaning.

From the above may be drawn the following medico-legal conclusions: A mother with child at breast in the first year, is, according to rules, always permitted a delay of enforcement of punishment until the end of the twelfth month, in the interest of the child; after the first year, on the contrary, a delay of the enforcement of punishment (imprisonment) of only from two to three weeks, in the interest of herself; but to use this period at once for weaning. In criminal cases the term for weaning is to be passed in a sick ward (lying-in hospital).

G. HALSTED BOTLAND, M. D.

Gorantown, Md.

NEWS AND MISCELLANY.

Corrigenda.

The chemical formula at the close of Prof. Maisch's communication, in the issue of the 11th inst., should be $C_{10}H_{10}Cl_6O$, not H_{10} , as printed.

The Wisconsin State Board of Health

Forwards us copies of the circulars it is distributing in the State. They are exceedingly well calculated to awaken interest in the medical profession, and attain the objects for which the Board was created. At its last meeting, in Madison, Dr. E. L. Griffin, of Fond du Lac, was elected President of the Board; and Dr. J. T. Reeve, of Appleton, its Secretary.

The following list of subjects was adopted, and work on each assigned by the President to the several members:—

1. Endemic, epidemic and contagious diseases.
2. Hygiene of schools, prisons and public buildings.
3. Sewerage and drainage.
4. Foods, drinks and water supply.
5. Disposal of excreta and decomposing organic matter.
6. Poisons and special sources of danger to health and life.
7. Influence of localities, employments and habits of the people on health.
8. Illuminating oils and explosives.
9. Ozone, and its relations to health and disease.

10. Ante-natal murder.
11. Mental hygiene.
12. Medical topography of Wisconsin.
13. Influence on health of forest trees and their removal; shade trees near dwellings, etc.
14. Construction and ventilation of public buildings and private houses.

Union of Forces Against Intemperance.

It is a good sign that clergymen and physicians are uniting against intemperance. One session of the Episcopal Church Congress at Boston was devoted to the discussion of "The Prevention and Cure of Drunkenness," in which J. E. Tyler, M. D., of Somerville; H. A. Hartt, M. D., and Rev. H. H. Newton, both of New York; G. C. Shattuck, M. D., of Boston, and Rev. W. P. Huntington, of Worcester, participated. Dr. Tyler commended enforced abstinence as the principal method of any value. Dr. Hartt thought the punishment of drunkenness, by making it a crime, would prove more effectual. Mr. Newton opposed the ordinary plan of temperance organizations, and suggested the formation of church societies similar to those in the English Church.

So in England. On October 30th, a Medical Conference, in connection with the Church of England Temperance Society, was held at Oxford; Dr. Acland, President of the Medical Council, in the chair. Addresses were delivered by Dr. Richardson, F. R. S., Professor Rolleston, and others. Dr. Richardson stated, as the conclusion he had come to after lengthened experiments, that alcohol was entirely useless from a medical point of view, and favored prohibition.

Sham Doctors.

In various parts of England the police have been employed to arrest certain persons practicing as doctors of medicine, chiefly in cities and large towns. The law which prohibits unqualified persons from acting professionally is very rigid and plain, and it is surprising that it has not been enforced earlier. In Manchester, convictions have taken place in a wholesale manner, batches of five and ten having been fined from \$10 to \$75 each. Imprisonment with hard labor is the penalty for a repetition of the offence. Most of the persons proceeded against had not even the pretence of being authorized to practice. A few, who had never crossed the Atlantic, possessed (by purchase) diplomas from the pretended "American University of Philadelphia and Eclectic College of Pennsylvania," 514 Pine street, Philadelphia, of which Dr. Buchanan was the head. The magistrates laughed these fictitious diplomas to scorn, and doubled the fines on their respective holders.

—A scare of variola prevails near Paulsboro, N. J.

Defective Eyesight in Children.

An examination of the sight of the school children in Portland, Me., by Dr. Spaulding, proved that twenty per cent. were of defective vision. Many of these were very slightly affected, yet ten per cent. were short-sighted enough to need glasses. Dr. Spaulding's deductions are that the defective lighting of school rooms is one cause of the trouble, and that the habit of holding books too close to the eyes is another. He advises children not to study with their faces toward a bright light, to rest the eyes frequently, and, when it is necessary to use glasses, not to choose stronger ones than are needed. He adds: "They should be taught that the light should always come from the side, or even over the shoulder; that the book should be held up, if possible, and never in the lap; that they should always have a shade over a lamp standing on a table at a level with their eyes, and especially if they have to face the light, as in writing; and that all bending positions, and reading in the twilight, or with the sunlight pouring over the book, are very harmful to the eyes."

Personal.

—Dr. Laurence Turnbull has removed from 1208 Spruce, to 1502 Walnut street.

—The friends of Dr. William Wellborn, who is somewhere in the State of Arkansas, are very anxious to obtain his address, for the purpose of rendering him assistance. Address Dr. W. B. Tackett, Cuthbert, Ga.

—Dr. John Dove, a native of Richmond, Va., died Nov. 16, aged eighty-four years. He was a Mason sixty-three years, during which time he held high positions in that order. He was the oldest Grand Secretary in the world, holding the office over fifty years.

—Dr. Irick, some years ago a prominent physician of Newark, known throughout the city because of his eccentric habits of living, died lately at his home on William street. He leaves a large estate, which will go to friends in Bavaria. He leaves no living heirs.

Items.

—The dietary of an English convict comprises, on alternate days, one pint of soup, properly seasoned, thickened with barley, rice, carrots and onions, four and a half ounces of cooked meat, free from bone—more meat than there is in an ordinary mutton chop—a pound of potatoes, and ten ounces of suet pudding. The rest of the menu is made up of gruel, tea, or cocoa hibs, and a liberal ration of bread every day.

—There were two yellow fever interments in Savannah on Nov. 15th. The Medical Society declares the epidemic at an end, and notifies absentees that they may return to Savannah.

—Alcoholism is on the increase in Switzerland as everywhere else. It makes very great ravages, and has carried off numerous victims in certain districts. This is inferred from the fact that the number of deaths from delirium tremens is limited in many towns and cantons to one or two per 1000 deaths, while in others it rises to five or six, and in some localities even to 35 per 1000.

—Diphtheria is prevalent and malignant near Shenandoah, Pa.

QUERIES AND REPLIES.

Ozone.

MR. EDITOR:—In my studies on sanitation, I am at a loss what to do with ozone. Is it, as Professor Thenard says, an energetic poison, very injurious to organic life, or is its presence, as others teach, necessary to a pure, healthful breathing air?

LAELIUS.

[The question is too hard; we pass it to our readers.]

MR. EDITOR:—In treating nasal catarrh with carbolic acid inhalations, what proportions do you consider most efficient?

CATARRH.

Reply.—We give you two formulæ to choose from, the first from the Chest Hospital, the second from the Throat Hospital, London, both taken from *Squire's Pharmacopœia of the London Hospitals*.

1. R. Acidi carbolicæ crystallizati, gr. xxx
Aque bullientis, foz. xx. M.
2. R. Acidi carbolicæ crystallizati, drachm vii
Aque, Ldrachm j. M.

A teaspoonful in a pint of water at 150° Fah. for each inhalation. For the general treatment of catarrh, see Dobell, on *Coughs, Consumption, and Diet in Disease*.

OBITUARY.

JOHN McNEIL, M. D.

This most estimable citizen of Westmoreland county, Pa., died at Greensburg, on Friday evening, November 3d, at the age of sixty-two years. He was in active practice up to the day of his death, which was caused by an attack of apoplexy, he living less than two hours after the first symptoms of the attack. He left his home on the day of his death, to transact some business at Greensburg, never to return alive. He was one of the oldest graduates of Jefferson Medical College, and for more than thirty-five years practiced his profession in the village of Delmont, Westmoreland county, where he had a large and lucrative practice, and enjoyed the confidence and respect of the entire community. Being a close reader, a careful observer, and a man of excellent judgment, he was held in high esteem by his brother physicians, and by them often called into consultation. He was strictly honest in all his dealings, both in professional and social matters. For many years he was a member of the County and State Medical Socie-

ties, and took a deep interest in all that pertained to his profession. A member of the Presbyterian Church, he lived a consistent life, and died, as he lived, a Christian.

In his death the sick have lost a friend, and the community at large a most honorable and estimable citizen; and of him it may truly be said, he lived not in vain.
D. A. H.

MARRIAGES.

BIDDLE—RODGERS.—On Wednesday, Nov. 8th, at Trinity Chapel, by the Rev. Wm. H. Benjamin, assisted by the Rev. S. H. Weston, D. D., George Biddle, of Philadelphia, and Mary Hosack, daughter of the late John Kearney Rodgers, M. D.

GUERNSEY—THOMAS.—At the First Presbyterian Church, Catasauqua, Pa., Thursday, Nov. 16th, 1876, by the Rev. C. Earle, Dr. Joseph C. Guernsey, of Philadelphia, and Gertrude Thomas, of Catasauqua.

HART—WIDDEMER.—In this city, Nov. 14th, 1876, by Rev. E. Soliday Widdemer, his daughter Irene and Henry Le Baron Hart, M. D., all of New York.

JOHNSON—PLEASANTS.—On October 26th, 1876, at Radnor, Delaware county, Pa., by Rev. Henry Brown, Barclay Johnson and Sallie, daughter of Dr. Henry Pleasants, all of Radnor.

KERRIGAN—O'NEILL.—On Friday, Nov. 17th, by Rev. Father Dealy, Joseph A. Kerrigan, M. D., and Julia B. O'Neill, daughter of Daniel Berrien, Esq., of this city.

LEACH—CROSSFIELD.—In Keene, October 25th, by Rev. Dr. G. W. Brown, Dr. J. Holmes Leach and Emily Marion Crossfield, both of Keene.

ORRIS—MILLIGAN.—On the 8th instant, by the Rev. J. Linn Milligan, assisted by the Rev. S. S. Orris, and the Rev. W. H. Logan, H. O. Orris, M. D., and Annie E. Milligan, both of Newport, Perry county, Pa.

ROSEBERRY—LUDWIG.—On the 30th ultimo, by Rev. Charles F. Schaeffer, D. D., of this city, Dr. Charles J. Roseberry and Miss Sophia B. Ludwig, both of Easton, Pa.

DEATHS.

BEADLE.—At Poughkeepsie, N. Y., on Tuesday, the 14th instant, Adeline, daughter of the late James Bogert, Jr., of New York city, and wife of Edward L. Beadle, M. D.

BROWER.—In Spring City, Ohio, Nov. 10th, 1876, Ida, daughter of Dr. W. and Sallie M. Brower, aged 1 year, 4 months and 1 day.

FORRESTER.—In New York city, on Tuesday morning Nov. 14th, 1876, Anna V., eldest daughter of the late John Sutphen and wife of James C. Forrester, M. D., in the 62d year of her age.

HAWLEY.—On Friday, 3d inst., in Jefferson, Ohio, Almon Hawley, M. D., in the 75th year of his age.

LLOYD.—At Orange, N. Y., on Tuesday, the 7th inst., Dr. J. Wiegand Lloyd.

MOORE.—In Rochester, N. Y., Oct. 24th, of diphtheria, Abby Joy, second daughter of Dr. E. M. and Lucy Prescott Moore.

NEEDHAM.—Ellen A., wife of Dr. O. H. Needham, in New York city, Nov. 13th, 1876.

SEILER.—At Harrisburg, Pa., on Saturday, November 21st, Dr. Robert H. Seiler.

Dr. Seiler has been a prominent member of the medical profession of Dauphin county for many years, and at one time President of the County Medical Society. His loss will be widely felt, and universally regretted.

WILLIAMS.—On Sunday morning, Nov. 5th, in Orange, Los Angeles county, Cal., Dr. D. Boone Williams, of this city.